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Item No. 4

Halifax Regional Council
February 5, 2008

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:

William H. Mosher

William H. Mosher, Chief Director
Halifax Regional Fire & Emergency

DATE: January 22, 2008

SUBJECT: Tender No. 07-380 - One (1) 28 Foot Fire/Rescue Boat

INFORMATION REPORT

ORIGIN

Halifax Regional Council meeting of January 15, 2008 Item No. 13.1 Council requested that staff provide an information report on the chronology of the procurement process and the product specifications.

BACKGROUND

Due to a number of concerns related to the current HRFES Fire Boat; maintenance repair costs, inadequate firefighting performance capability, and operational limitations, we have been researching further options available for a water craft capable of conducting shoreline and marina firefighting operations from within the harbour.

Our concerns are related to the number of shore line structures already in place, the continuing growing number of new structures along the waterfront, the numerous marina's, fishing and leisure boats, and the two HRM Passenger Ferries; and that the current fireboat was not a viable option to provide a platform to conduct safe and effective firefighting operations.

Depending on other agencies such as the Canadian Coast Guard and the Naval Fire Tug (Firebird) are not practicable because they are not HRM assets and they have other operational requirements outside of assisting HRFES. The assistance from the CF and Coast Guard do greatly depend on what functions they are

undertaking at the time of our request, and limits their ability to be on call for our service, 24 hours / 7 days. In addition to a guaranteed response, there are also communication issues (due to potential incompatible communications systems), and when communication breakdowns occur, Firefighter safety is compromised.

The DND Firebird's priority is to the CF Naval Fleet and DND Shoreline. The CF has permitted the Firebird to assist HFRES in the past; however the Firebird's response has functional limitations, due to its speed and size. It is not practicable to have the Firebird respond into the Bedford Basin or Armdale Basin as a result of its top speed (11 knots). Whereas the tendered Harbour Guard Boat has a top speed of approximately 65 knots. The Firebird is also limited to what areas it would be able to set up and commence firefighting operations. It would require much more room to maneuver, a greater depth of water to function in; however the Harbour Guard Boat is extremely maneuverable in confined areas and can move and pump water in as little as 15 inches of water, using the jet inboard engine. Each fire boat has completely different functions; however in combination, both would offer firefighting capabilities from the harbour that doesn't currently exist. DND does not have a fast water firefighting capability; however with the Harbour Guard Fireboat, HRFES would be able to offer a service to the CF that could greatly compliment their existing ability.

In early 2005 HRFES commenced research into replacing the existing re-engineered RHIB / Fireboat. Research started on what types of pre-engineered fireboats were on the market. Initially the research was moving towards Metal Craft Marine; however their costs were in the range of \$400,000 to \$750,000. The next pre-engineered Fire Boat that was researched was the 'Fire Hawk', its estimated costs were \$150,000 to \$280,000 (both versions costs depend on size and features). Without getting into the large type Fire boats, similar to the Firebird, the only two companies that had engineered and designed fire boats were Metal Craft Marine and Harbor Guard (NFPA rated and North American, National Fire Protection Association which cover the industry standards for all fire related topics).

The word was spreading around the marine community that HRFES was starting to look towards acquiring a Fire Boat, and calls from local boat builders started to occur. The two companies who initiated contact with HRFES were Rosborough Boats and ABCO Industries (early 2007).

Mr Rosborough contacted Acting Deputy Chief Dave Smith (Spring 2007). Mr. Rosborough stated that he could retrofit a Rough Water T9M Rib with a fire pump and monitor nozzles to meet what HRFES actually required. A/Deputy Smith explained that we already have something similar to this design and it is not an effective means of firefighting from the water. A/Deputy Smith did ask Mr. Rosborough to submit a bid and an engineered design and that HRFES would be very happy to review it and meet to discuss the design. Mr. Rosborough insisted that he could redesign one of his Rough Water Rigid Hull Inflatable Water Craft to suit our needs, but never did submit a design to HRFES.

In the summer of 2007 (and at the request of Rosborough Boats), Deputy Chief Hollett visited his shop in the Nova Scotia Yacht Squadron Yard. As part of the visit, D/C Hollett accompanied Mr. Rosborough in one of his 'Rough Water Rescue Boats (A Rigid Hull Inflatable Water Craft). During the cruise of the Armdale Basin, Mr. Rosborough spoke of the benefits of his boats over all other similar competitors in the area and that his boat was what HFRES really needed and not something else. Mr. Rosborough continued to speak of his track record selling to the Canadian Coast Guard and a number of US Water Rescue organizations and that his boats would meet our need; however he continued to state that he had never built a Fire Boat. He was however working on constructing one for Montreal, that it would be a version of the T9M Rough Water Rescue Craft (RHIB), but with a 500gpm pump installed and one monitor installed. Mr Rosborough was informed that HRFES was not looking for a Rescue Boat nor a water craft that was not proven as a Fire Boat. HRFES was looking to acquire a fire boat that was tried, tested, and pre-engineered as a proven fireboat.

It was explained to Mr Rosborough that a 500gpm pump is not a worthwhile installation for our needs. The pump size would just meet absolute minimum gallons per minute for NFPA (but that there were more requirements besides pump capacity for a NFPA compliant water craft). For what our intended purpose was, this size of pump would be completely inadequate for firefighting and as a water supply for land based firefighting from the harbour. In addition, HRFES would be looking to have a fireboat that was not a R.H.I.B type and a firefighting package that would have a fire pump with a drastically increased pumping capacity: at least 1500gpm (US gpm) flowing from each of the two nozzles simultaneously, or 2000gpm from a single nozzle. Any flow less would not be much of an asset on the water side of a firefighting operation (this flow would also be in conjunction with an ability to push the high volumes of water 100+ feet).

It was explained to Mr Rosborough that the current 'fireboat design', which HRFES has, is a R.H.I.B.. This reconfigured craft has a 350gpm pump bolted down to the deck; which has proven to be extremely inadequate for firefighting purposes. Mr. Rosborough did not agree and felt that 500gpm was more than enough for our fireboat. As fire professionals and following NFPA Standards, HRFES understood that the tendered fire boat from Harbour Guard does meet the NFPA Piping System Standard (NFPA 1925) in being able to pressurize the system to 400psi for 60 minutes, without leaking. The tendering process was explained to Mr. Rosborough and if he were interested in building the boat, he would need to submit a bid in accordance with HRM procurement practices.

After a lengthy discussion regarding the Rosborough Boat (R.H.I.B) and how it would suit the needs for a fire boat for HRFES; D/Chief Hollett informed Mr Rosborough that HRFES did not want another R.H.I.B. for a Fire Boat and that if Mr. Rosborough felt he could build something to suit our tender (if and when we decide to tender for a fire boat) for him to please submit a bid and that we would definitely review his offer. On two occasions D/Chief Hollett met with Anthony Purcell, from ABCO Industries on their interest in building an aluminum boat for all purposes; however that ABCO have yet to build a fireboat, but have built other specific types of marine craft.

There were at least two meetings with the ABCO representative and again, the type of boat was discussed with ABCO. After the tender closed, ABCO did meet again with HRFES inquiring into our tender and Fire Services was surprised to hear that they didn't know about our tender. Anthony was directed to HRM Procurement for details regarding our process.

DISCUSSION

The following process was used to tender one (1) 28 foot Fire/Patrol/Rescue boat:

- June 19th 2007 Council approved the transfer of \$230,000.00 from Q206 - Fire Vehicle and Equipment Reserve to apparatus replacement account CVJ00703.
- June 25th 2007 Superintendent of Emergency Fleet - Mechanical Services, received information outlining type of vessel and operational requirements to meet the needs of fire services from Acting Deputy David Smith.
- June 25th - July 30th Superintendent of Emergency Fleet interviewed crew of 13 station (current location of R.H.I.B. - Fire boat) as to hear their suggestions. Talked to Captain Jack Dabrowski, Manager of the Ferries, on harbour conditions and

what conditions we can expect Gathered information from Fire officers in training, safety and operations. Researched information on internet and used information provided by Fire Services to form tender.

- July 30th Superintendent of Emergency Fleet sent draft tender back to Fire Services for final review.
- August 7th Sent to procurement to send out for tender.
- August 8th Tender 07-380 went out.
- September 21 Tender closed with one response from MicMac Fire and Safety.
- October 3rd Procurement forwards information on MetalCraft Marine and Emergency Fleet Superintendent Paul McCully contacted them for further information and budget pricing. In order to meet the operational pumping capacity the vessel would be 33'6" long and cost \$400,000.00 - \$450,000.00. This cost did not include addition financial impact of this water craft (dedicated mooring / dock, boat shed as it is impracticable to tow).
- October 11th Opened tender 07-380 Mic Mac Fire and Safety with the Harbor Guard Fire Hawk 28'.
- October 25th Reviewed tender and informed Deputy Chief Thurber that Emergency Fleet Superintendent Paul McCully has concerns and questions on the operation of the vessel that needed to be addressed. Arrangements were made at our cost to view a similar vessel that was ready for sea trials in California.
- November 13th The vessel was inspected with the engineer and discussed concerns and checked over the quality of work. Launched and sailed unit to open water and performed sea trials. Tested water flow and fire package. Satisfied with product, carried on with preconstruction meeting.
- December 10th Received final price from MicMac as a result of the preconstruction meeting.
- December 14th Procurement prepared a council report from the information received from Emergency Fleet Superintendent Paul McCully .
- January 8 th 2008 Passed at council.

The tender 07-380 is a seventeen (17) page document that covers:

- (a) Terms and conditions
- (b) Intent of specifications

- (c) Delivery
- (d) Exceptions
- (e) Testing
- (f) Information
- (g) Operating conditions
- (h) Law abidance
- (i) General Specifications
- (j) Twin outboards
- (k) In-board jet drive engine
- (l) Jet drive
- (m) Hull
- (n) Pilot House
- (o) Electrical
- (p) Emergency lights & running lights
- (q) Standard equipment to be supplied
- (r) Fire package
- (s) Warranties
- (t) Trailer

It needs to be noted that on page 1 of Tender Document 07-380 that section 11, "APPROVED EQUALS" allows for all vendors to "propose a suitable substitute for consideration".

Approved Equals (quoted from tender)

"Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process by trade name, make or catalogue number shall be regarded as establishing a standard of quality and shall not be construed as limiting competition; and a bidder may, at its option, use any equipment material, article or process which in the judgement of the Halifax Regional Municipality is deemed equal to that designated."

Safety / Inspection Requirements (quoted from tender):

"Vessel proposed by the bidder shall meet the requirements of Transport Canada Marine Construction Standards for Small Vessels TP1332 and will be considered part of the tender. Must also comply or be able to comply with Transport Canada Regulations Ship Station (Radio) Regulations, 1999 SOR/2000-260, Small Vessel Regulations CRC, VOL. XVII, c. 1487, Collision Regulations CRC, VOL. XV, c. 1416 and Ships Electrical Standards (2002) TP127".

"To abide by the provisions of all legislative enactments, statutes, by laws and regulations in regard to safety in the province of Nova Scotia. and as required by the Government of Canada for the operation of small Commercial Vessels. All aspects of construction shall comply with TP1332 of the Small Vessel Regulations made under the Canada Shipping Act."

BUDGET IMPLICATIONS

None

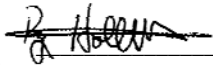
FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

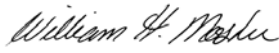
This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ATTACHMENTS

None

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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